

BE
474B #13

PCT

RAW SEQUENCE LISTING

DATE: 01/23/2004

PATENT APPLICATION: US/09/937,665A

TIME: 10:46:18

Input Set : A:\JJ1825.ST25.txt

Output Set: N:\CRF4\01232004\I937665A.raw

3 <110> APPLICANT: Kutchan, Toni M.
 4 Zenk, Meinhart H.
 5 Atkins, David G.
 6 Fist, Anthony J.
 8 <120> TITLE OF INVENTION: CODEINONE REDUCTASE FROM ALKALOID POPPY
 10 <130> FILE REFERENCE: JJ-1825
 12 <140> CURRENT APPLICATION NUMBER: US 09/937,665A
 13 <141> CURRENT FILING DATE: 2001-09-26
 15 <150> PRIOR APPLICATION NUMBER: PCT/AU00/00249
 16 <151> PRIOR FILING DATE: 2000-03-24
 18 <150> PRIOR APPLICATION NUMBER: AU PP 9463
 19 <151> PRIOR FILING DATE: 1999-03-26
 21 <160> NUMBER OF SEQ ID NOS: 25
 23 <170> SOFTWARE: PatentIn version 3.2
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 20
 27 <212> TYPE: DNA
 28 <213> ORGANISM: Artificial Sequence
 30 <220> FEATURE:
 31 <223> OTHER INFORMATION: PCR Primer
 34 <220> FEATURE:
 35 <221> NAME/KEY: misc_feature
 36 <222> LOCATION: (3)..(3)
 37 <223> OTHER INFORMATION: n = A or G
 39 <220> FEATURE:
 40 <221> NAME/KEY: misc_feature
 41 <222> LOCATION: (6)..(6)
 42 <223> OTHER INFORMATION: n = T or C
 44 <220> FEATURE:
 45 <221> NAME/KEY: misc_feature
 46 <222> LOCATION: (9)..(9)
 47 <223> OTHER INFORMATION: n = T or C
 49 <220> FEATURE:
 50 <221> NAME/KEY: misc_feature
 51 <222> LOCATION: (12)..(12)
 52 <223> OTHER INFORMATION: n = A or C or T
 54 <220> FEATURE:
 55 <221> NAME/KEY: misc_feature
 56 <222> LOCATION: (15)..(15)
 57 <223> OTHER INFORMATION: n = T or G
 59 <220> FEATURE:
 60 <221> NAME/KEY: misc_feature
 61 <222> LOCATION: (18)..(18)

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62 <223> OTHER INFORMATION: n = T or C
64 <400> SEQUENCE: 1
W--> 65 gancnttttna tnacntcnaa 20
68 <210> SEQ ID NO: 2
69 <211> LENGTH: 26
70 <212> TYPE: DNA
71 <213> ORGANISM: Artificial Sequence
73 <220> FEATURE:
74 <223> OTHER INFORMATION: PCR Primer
77 <220> FEATURE:
78 <221> NAME/KEY: misc_feature
79 <222> LOCATION: (3)..(3) /
80 <223> OTHER INFORMATION: n = T or C
82 <220> FEATURE:
83 <221> NAME/KEY: misc_feature
84 <222> LOCATION: (6)..(6) /
85 <223> OTHER INFORMATION: n = i
87 <220> FEATURE:
88 <221> NAME/KEY: misc_feature
89 <222> LOCATION: (8)..(8) /
90 <223> OTHER INFORMATION: n = T or G
92 <220> FEATURE:
93 <221> NAME/KEY: misc_feature
94 <222> LOCATION: (9)..(9) /
95 <223> OTHER INFORMATION: n = T or A
97 <220> FEATURE:
98 <221> NAME/KEY: misc_feature
99 <222> LOCATION: (12)..(12) /
100 <223> OTHER INFORMATION: n = i
102 <220> FEATURE:
103 <221> NAME/KEY: misc_feature
104 <222> LOCATION: (24)..(24) /
105 <223> OTHER INFORMATION: n = G or A
107 <400> SEQUENCE: 2
W--> 108 ttncncncng cnaactgcaat ctgntg 26
111 <210> SEQ ID NO: 3
112 <211> LENGTH: 21
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: PCR Primer
120 <220> FEATURE:
121 <221> NAME/KEY: misc_feature
122 <222> LOCATION: (4)..(4) /
123 <223> OTHER INFORMATION: n = T or C
125 <220> FEATURE:
126 <221> NAME/KEY: misc_feature
127 <222> LOCATION: (10)..(10) /
128 <223> OTHER INFORMATION: n = T or C

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130 <220> FEATURE:
131 <221> NAME/KEY: misc_feature
132 <222> LOCATION: (16)..(16)
133 <223> OTHER INFORMATION: n = C or G
135 <220> FEATURE:
136 <221> NAME/KEY: misc_feature
137 <222> LOCATION: (19)..(19)
138 <223> OTHER INFORMATION: n = i
140 <400> SEQUENCE: 3
W--> 141 catntccacn tgattnacna c 21
144 <210> SEQ ID NO: 4
145 <211> LENGTH: 29
146 <212> TYPE: DNA
147 <213> ORGANISM: Artificial Sequence
149 <220> FEATURE:
150 <223> OTHER INFORMATION: PCR primer
153 <220> FEATURE:
154 <221> NAME/KEY: misc_feature
155 <222> LOCATION: (3)..(3)
156 <223> OTHER INFORMATION: n = i
158 <220> FEATURE:
159 <221> NAME/KEY: misc_feature
160 <222> LOCATION: (6)..(6)
161 <223> OTHER INFORMATION: n = i
163 <220> FEATURE:
164 <221> NAME/KEY: misc_feature
165 <222> LOCATION: (9)..(9)
166 <223> OTHER INFORMATION: n = C or T
168 <220> FEATURE:
169 <221> NAME/KEY: misc_feature
170 <222> LOCATION: (12)..(12)
171 <223> OTHER INFORMATION: n = A or G
173 <220> FEATURE:
174 <221> NAME/KEY: misc_feature
175 <222> LOCATION: (15)..(15)
176 <223> OTHER INFORMATION: n = i
178 <220> FEATURE:
179 <221> NAME/KEY: misc_feature
180 <222> LOCATION: (18)..(18)
181 <223> OTHER INFORMATION: n = A or G
183 <220> FEATURE:
184 <221> NAME/KEY: misc_feature
185 <222> LOCATION: (22)..(22)
186 <223> OTHER INFORMATION: n = A or T
188 <220> FEATURE:
189 <221> NAME/KEY: misc_feature
190 <222> LOCATION: (23)..(23)
191 <223> OTHER INFORMATION: n = G or C
193 <220> FEATURE:

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194 <221> NAME/KEY: misc_feature
195 <222> LOCATION: (24)..(24) ✓
196 <223> OTHER INFORMATION: n = i
198 <220> FEATURE:
199 <221> NAME/KEY: misc_feature
200 <222> LOCATION: (27)..(27) ✓
201 <223> OTHER INFORMATION: n = i
203 <400> SEQUENCE: 4
W--> 204 gtngtnaanc angtnganat gnnnccnac 29
207 <210> SEQ ID NO: 5
208 <211> LENGTH: 21
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: PCR primer
215 <400> SEQUENCE: 5
216 atggagagta atggtgtacc t 21
219 <210> SEQ ID NO: 6
220 <211> LENGTH: 21
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: PCR primer
227 <400> SEQUENCE: 6
228 gacagtcctc acttaccatc t 21
231 <210> SEQ ID NO: 7
232 <211> LENGTH: 33
233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Primer
239 <400> SEQUENCE: 7
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244 <211> LENGTH: 33
245 <212> TYPE: DNA
246 <213> ORGANISM: Artificial Sequence
248 <220> FEATURE:
249 <223> OTHER INFORMATION: Primer
251 <400> SEQUENCE: 8
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255 <210> SEQ ID NO: 9
256 <211> LENGTH: 7
257 <212> TYPE: PRT
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Synthetic Construct
264 <220> FEATURE:
265 <221> NAME/KEY: misc_feature

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Input Set : A:\JJ1825.ST25.txt

Output Set: N:\CRF4\01232004\I937665A.raw

266 <222> LOCATION: (1)..(1)
 267 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
 269 <400> SEQUENCE: 9
W--> 271 Xaa Leu Gln Glu Leu Met Ala
 272 1 5
 275 <210> SEQ ID NO: 10
 276 <211> LENGTH: 11
 277 <212> TYPE: PRT
 278 <213> ORGANISM: Artificial Sequence
 280 <220> FEATURE:
 281 <223> OTHER INFORMATION: Synthetic Construct
 283 <400> SEQUENCE: 10
 285 Val Leu His Gln Ile Ala Val Ala Arg Gly Lys
 286 1 5 10
 289 <210> SEQ ID NO: 11
 290 <211> LENGTH: 10
 291 <212> TYPE: PRT
 292 <213> ORGANISM: Artificial Sequence
 294 <220> FEATURE:
 295 <223> OTHER INFORMATION: Synthetic Construct
 297 <400> SEQUENCE: 11
 299 Asp Asp Asp Glu Leu Phe Ile Thr Ser Lys
 300 1 5 10
 303 <210> SEQ ID NO: 12
 304 <211> LENGTH: 16
 305 <212> TYPE: PRT
 306 <213> ORGANISM: Artificial Sequence
 308 <220> FEATURE:
 309 <223> OTHER INFORMATION: Synthetic Construct
 311 <400> SEQUENCE: 12
 313 Ile Pro Asp Val Val Asn Gln Val Glu Met Ser Pro Thr Leu Gly Gln
 314 1 5 10 15
 317 <210> SEQ ID NO: 13
 318 <211> LENGTH: 7
 319 <212> TYPE: PRT
 320 <213> ORGANISM: Artificial Sequence
 322 <220> FEATURE:
 323 <223> OTHER INFORMATION: Synthetic Construct
 326 <220> FEATURE:
 327 <221> NAME/KEY: misc_feature
 328 <222> LOCATION: (1)..(1)
 329 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
 331 <400> SEQUENCE: 13
W--> 333 Xaa Val Asn Glu Ile Pro Lys
 334 1 5
 337 <210> SEQ ID NO: 14
 338 <211> LENGTH: 5
 339 <212> TYPE: PRT
 340 <213> ORGANISM: Artificial Sequence

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/937,665A

DATE: 01/23/2004
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Input Set : A:\JJ1825.ST25.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 3, 6, 9, 12, 15, 18
Seq#:2; N Pos. 3, 6, 8, 9, 12, 24
Seq#:3; N Pos. 4, 10, 16, 18
Seq#:4; N Pos. 3, 6, 9, 12, 15, 18, 22, 23, 24, 27
Seq#:9; Xaa Pos. 1
Seq#:13; Xaa Pos. 1
Seq#:14; Xaa Pos. 1
Seq#:15; Xaa Pos. 5

VERIFICATION SUMMARY

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Input Set : A:\JJ1825.ST25.txt

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L:65 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:271 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0